

REMARKS

In an Office Action dated 29 March 2007, the Examiner rejects claims 45-60 (all pending claims). In response to the Office Action, Applicants respectfully traverse the rejections. In light of the following arguments, Applicants respectfully request that this application be allowed.

The Examiner rejects claim 45 under 35 U.S.C. §103 (a) as being unpatentable over U.S. Patent Number 4,918,730 issued to Schulze (Schulze) in view of U.S. Patent 5,918,730 issued to Blum et al (Blum) in further view of U.S. Patent Number 5,327,521 issued to Savic et al. (Savic) in further view of U.S. Patent Number 6,092,040 issued to Voran (Voran). In order to maintain a rejection the Examiner has the burden of providing evidence of prima facie obviousness. See MPEP §2143. See also In Re Vaeck, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). In order to prove prima facie obviousness, the Examiner must provide evidence in the prior art of a motivation to combine or modify a reference, a reasonable expectation of success, and a teaching of each and every claimed element. *Id.* The Examiner has not provided a combination of references that teach each and every of the claim limitations. Specifically, claim 45 recites” comparing said plurality of signatures of said sampled work to a plurality of reference signatures of each of a plurality of reference works wherein said plurality of reference signatures of each of said plurality of reference works are created from a plurality of segments of said each of said plurality of reference works having a known segment size and a known hop size and said predetermined hop size of each of said plurality of segments of said sampled work is less than said known hop size” The Examiner has failed to provide a teaching of hop sizes of a reference signature and

signatures of a sampled work that is being compared to reference sample have different hop sizes. Applicants have amended the claim to make it clear that signatures being compared have different hop sizes to facilitate identification.

Claim 45 recites segments of the sampled works and segments of each reference work. The hop size of the segments of the sampled work is less than the hop size of the segments of a reference work. Thus, you have two different items or works divided into segments with the segments of a reference work being greater than the size of a segment of a sampled work. Schulze does not teach this limitation. Schulze does not teach hop size anywhere in the reference. Therefore, Schulze cannot possibly teach the hop sizes of the reference works are different from the hop sizes of the sampled work. The use of different hop sizes for the references and sampled works allows for better identification of the sampled work as they allow a greater possibility that a signature of a reference segment aligns with a signature of a segment of the sampled work. Thus, Schulze does not teach hop sizes of two compared references being different.

Blum also does not teach that the hop size of segments in reference works are different from the hop size of a sampled work. Applicants have read the entirety of Blum and have not found teaching of hop size in Blum. Thus, it cannot teach having different hop sizes for the references and sampled work.

Savic also does not teach the limitation of the hop size for reference segments is different from the hop size of the sampled work. Savic **does teach the concept of a hop size** at Col. 4, lines 40-44 where the sample data is segmented into blocks of 256 samples each with a shift distance of 1/4 or 64 samples. There is nothing in Savic that

teaches a first or reference set of data has a first hop size and a second or sample set of data that has a second hop size. The purpose of the differing hop sizes in the claims is to provide a greater chance of a two segments matching up with respect to the data in the sample in order to get a greater success in matching a segment of the reference work signature to a signature of a sample. Savic does not have this concern because Savic is teaching a speech transforming system in which a recording of a voice is split into overlapping segments for analysis. See Col. 6, lines 7-19 and Col. 7, lines 3-17. Since there are no comparisons of segments of different items, Savic cannot teach that the hop sizes of the two items are different to try to make matches more likely.

Voran also does not teach that the segments from the two different sets of data have different hop sizes. A hop size is the amount of data between the start of adjacent segments of data. In amended claim 45, the data from the unknown work is divided into segments having a first hop size between samples and signatures are generated of each segment. These signatures of these segments are compared to signatures of a segments of a second reference having a second hop size. This allows for a greater possibility that the reference and test segments will align producing better results. Voran does not teach this concept. Instead, Voran teaches an algorithm that detects delay between an input and an output signal. See Col. 2, lines 12-24. A second algorithm may be performed to determine the difference in speech quality of two signals. Neither of these use differing hop sizes to compare the two signals. In fact there is no mention anywhere in the entirety of Horan about hop sizes between segments. The only mention of the actual samples is given in block 110 and described on Page 5, lines 32-39 in which Voran states the same number of samples from each signal are stored in separate arrays. The only other mention of the samples is page 12, lines 24-32 in which Voran states the reference

files must have the same length and be synchronized. This means that both files must have the same number of segments or samples since a different hop size between segments would create more segments and files could not be synchronized. Thus, not only does Voran not teach the use of hop sizes, Voran implicitly teaches against their use. Therefore, Voran does not teach the use of different hop sizes in the data of the two different works.

Since none of the above cited references teach that the hop sizes of the references and the sampled work are different, the combination of the references does not teach this limitation. Thus, Applicants respectfully request that the rejection of claim 45 be removed and claim 45 be allowed.

Furthermore, since Voran does not teach hop sizes, the Examiners motivation to combine is not supported by the evidence. Voran does not use differing hop sizes. Thus, one skilled in the art would not be motivated to add the references together to make the claimed invention. It appears that the Examiner is using impermissible hindsight engineering to piecemeal together a rejection. Thus, Applicants respectfully request that the rejection of claim 45 be removed and claim 45 be allowed.

Claims 46-52 are dependent from claim 45. Thus, claims 46-52 are allowable for at least the same reasons as claim 45. Therefore, Applicants respectfully request that claims 46-52 be allowed.

Claim 53 recites an apparatus that performs the method of claim 45. Thus, claim 53 is allowable for at least the same reasons as claim 45. Thus, Applicant respectfully requests that claim 53 be allowed.

Claims 54-60 are dependent from claim 53. Thus, claims 54-60 are allowable for at least the same reasons as claim 53. Therefore, Applicants respectfully request that claims 54-60 be allowed.

If the Examiner has any questions regarding this response or the application in general, the Examiner is invited to telephone the undersigned at 775-586-9500.

Respectfully submitted,
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